

# **BANGLADESH-INDIA AND BANGLADESH-MYANMAR MARITIME VERDICT: IMPACT ON FUTURE MARITIME OPERATIONS IN THE REGION**

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## **INTRODUCTION**

Bangladesh-Myanmar maritime verdict was declared on 14 March 2012 by International Tribunal on the Law of the Sea (ITLOS). The visit of United States president to Myanmar took place in November 2012 followed by 2nd visit in November 2014. Myanmar awarded 36 gas blocks for exploration to international companies in between 2013 and 2014. Contracts could earn Myanmar a total of \$226.1 million in signing bonuses alone which is the highest suck lump bonus in Myanmar's recorded history (Sophie, 2014: 3). Offshore oil and gas industry earned for Myanmar government \$1.5 billion in 2014 fiscal year and expects more than \$5 billion foreign direct investment in fiscal year 2015 (Reuters, 2014: 1). The 2nd Myanmar gas week held in May 2015 where 61 international oil companies participated (IB Times, 2015: 4). Third bidding is due in 2016 to award more offshore gas blocks. The Bay of Bengal (BoB) potentiality has offered unprecedented development in Myanmar and maritime verdict paved the way.

Bangladesh is a maritime country with average Maritime Dependency Factor about 35% (Begum, 2004: 4). Maritime delimitation is regarded as 'Samudra Joy' for Bangladesh and now dreaming of pursuing 'Blue Economy' from maritime potentialities. Wave and wind of the bay has influenced land as well. Bangladesh and India has solved historic land boundary enclave issues and signed robust land and maritime communication agreement in 2015. Verdict has awarded opportunities to explore huge maritime economic potentialities for the nation.

The BoB gas is flowing from Myanmar to China since 2012. India has heavily invested in Myanmar gas exploration and is planning to import gas from Myanmar. Globalised maritime trade, international actors' power balance, scarcity of land resources, importance of energy and many other factors has attracted regional and extra regional powers to the BoB. Shift of global economic Centre of Gravity from west to east has further increased attraction of global powers to South East Asia. Long lasting maritime dispute amongst Bangladesh, India and Myanmar acted as major hindrance to venture the BoB.

Maritime disputes amongst Bangladesh, Myanmar and India are resolved through the verdict of ITLOS and PCA in 2012 and 2014 respectively. Present geo political scenario in the Indian Ocean Region (IOR) particularly in the BoB pursues an impetus in regional maritime operations where regional and extra regional power like USA, China, Russia, and EU have significant interests. Myanmar and India already have taken robust steps to explore maritime resources. Under such global and regional reality, Bangladesh needs to revamp maritime operations through organized applications of resources, knowledge and skills to gain maritime objectives in post verdict scenario.

## **MARITIME ENVIRONMENT IN THE BAY OF BENGAL REGION**

### **Economic Potentiality**

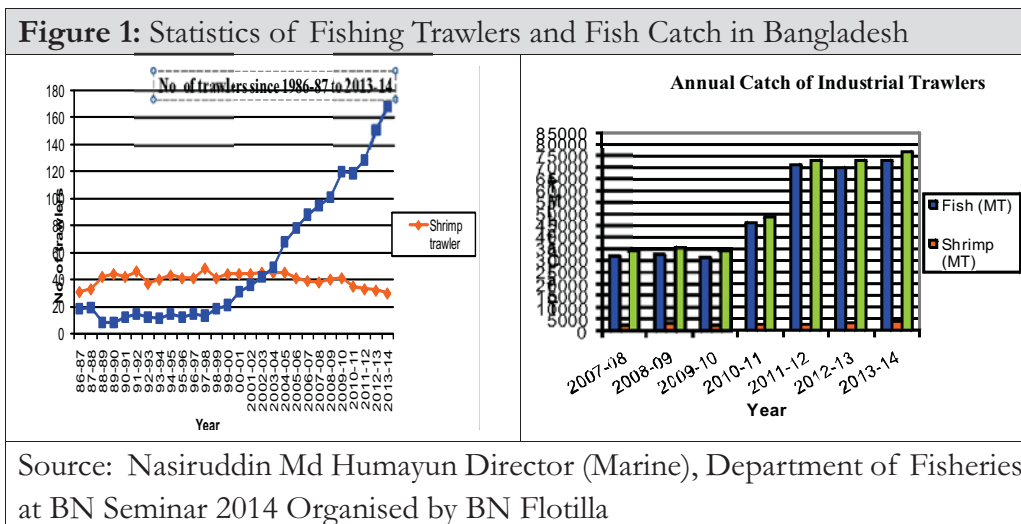
**Geostrategic Importance of the BoB.** India as a littoral of the BoB has multidimensional interest in the BoB. USA and her allies have huge investment in the BoB in hydrocarbon exploration. China is ensuring presence in the BoB under String of Pearl action plan. This increases geostrategic importance of the BoB in global and regional power balance. China transfer offshore gas and oil through pipelines using Myanmar Coast. Singapore and Hambantota at Srilanka, two of the world's transnational sea port, are at the exit and entry of the BoB. Funnel shape of the BoB facilitates carrying goods up to apex in Bangladeshi ports and can serve Bangladesh as well as eastern part of India, Nepal, Bhutan and part of China. This region has only access to sea through the BoB. As such, Sea Lines of Communications (SLOC) can play key role for regional economic development.

**Hydrocarbon in the BoB.** United States Geological Survey (USGS) 2001 states that there are large reserves in western Bangladesh, West Bengal, Surma basin area, greater part of sub aerial delta and southern offshore regions of Bangladesh. Bangladesh's hydrocarbon reserve in the BoB was estimated as 33.5 TCF in 2001. India and Myanmar discovered large gas field in the BoB area. Natural gas reserve in the BoB littorals including neighbouring China are appended in Table 1 shows that Bangladesh has the highest density of gas considering the Gas vs Geographical Area ratio.

Table-1: Geostrategic Importance of the BoB - Proven Natural Gas in the BoB Littorals					
World Rank  (a)	Country/ Region  (b)	Natural gas Proven Reserves (m <sup>3</sup> ) (est) (c)	Geo- graphic Area in (km2) (d)	Gas Reserve vs Geo- graphical Area Ratio, (e)= (c) / (d)	Date of Information  (d)
13	China	3,100,000,000,000	9572900	323830	1 January 2012
26	India	1,075,000,000,000	3166414	339500	1 January 2010
38	Thailand	342,000,000,000	513120	666510	
42	Burma	283,200,000,000	676578	418577	
48	Bangladesh	195,400,000,000	147570	1324117	
Source: Author. (Data from List of Countries by Natural Gas Proven Reserves' and 'List of Countries and Dependencies by Area) [internet]					

Besides thermogenic gas, India, being the first Asian country outside USA and Canada to discover biogenic gas popularly known as 'Shale gases' in geothermal-gradient of the BoB. (Ahmed, 2014: 61). The Manganese nodules of 40 different materials including copper, aluminum, nickel, iron, cobalt and manganese are wide spread in the BoB (Hasan, 2014: 235).

**Living Resources in the BoB.** The BoB is said to be silver mine due to abandon reserve of living resources. In 2012-13, a quantity of 5,88,988 tons of sea fish was collected from Bangladesh sea area. Export of fish and fish product during 2012-13 fiscal years was worth of Tk 50,000 crore which is 2.01 percent of country's total export earnings and 5 percent of GDP. Yearly fish catch in the BoB is 6 mt, while Bangladesh catches only 0.29 mt (Hasan, 2014: 234). The BoB has special tropical marine eco system with incredible influence on productivity of near shore fish species. There are around 30 types of shrimps, 15 types of crabs, 300 types of mollusks and 13 varieties of corals in the BoB. Above all, the BoB is the major source of Hilsha fish for regional and global market supply. Fishing by Bangladesh in the BoB has increased significantly after the verdict as stated in the figure below:



## Maritime Trade in the BoB

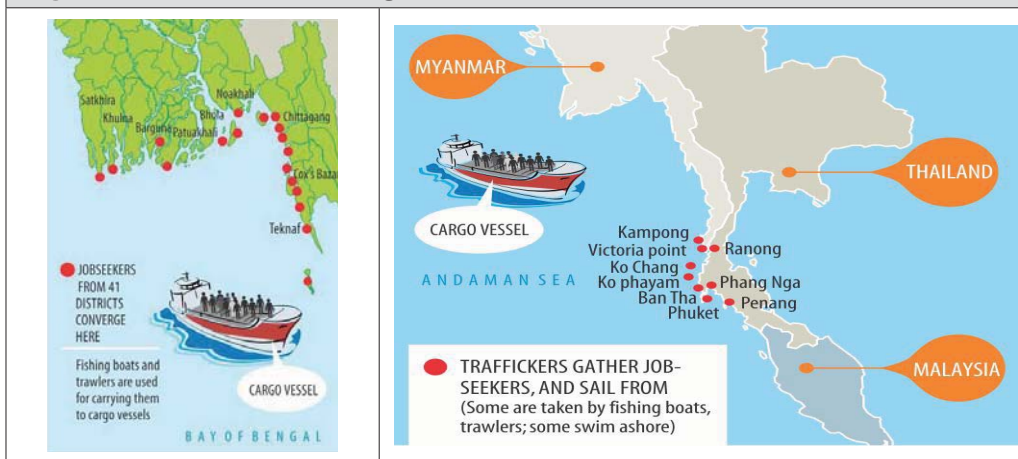
**Regional Maritime Trade.** Since 1970, global seaborne trade has expanded on an average by 4 per cent every year (UNCTAD Review 2012, 22). At this pace, global seaborne trade is expected to increase by 36 per cent in 2020 and to double by 2033. In 2010, about three quarters of import growth of developing economies took place in East and South Asia. Developing countries contribute increasingly larger shares and growth to both world GDP and seaborne trade. The BoB encircled with countries of global production like Sri Lanka, Bangladesh, India, Myanmar, and Thailand. These countries play key role in regional as well as global maritime trade. Economic growth of China, India, Bangladesh, Myanmar, Thailand and other Asian countries has increasing demand of maritime trade through the BoB in the upcoming years.

**Maritime Trade of Bangladesh.** About 90 percent of export, 100 percent import of garment materials, 100 percent import of Petroleum and lubricant (POL) of Bangladesh are traded through the sea. Dhaka-Chittagong and Dhaka-Mongla corridor contributes 30 percent of GDP due to sea port. (Begum, 2004: 4). Forty percent of annual revenue comes in the form of export-import and value added tax. Maritime trade of Bangladesh is growing substantially.

## Security Issues in the BoB

**Human Trafficking.** Human Trafficking turned to be major crisis in the BoB in 2015 as Bangladeshi and Rohingya workers seeking work at South East Asian Countries like Malaysia, Thailand or Singapore and making dangerous venture from Bangladeshi coast following Myanmar coast (Figure 2). About 25,000 Bangladeshi and Rohingya boarded Smugglers boats from the BoB between January to March in 2015 which is almost double over same period in 2014.

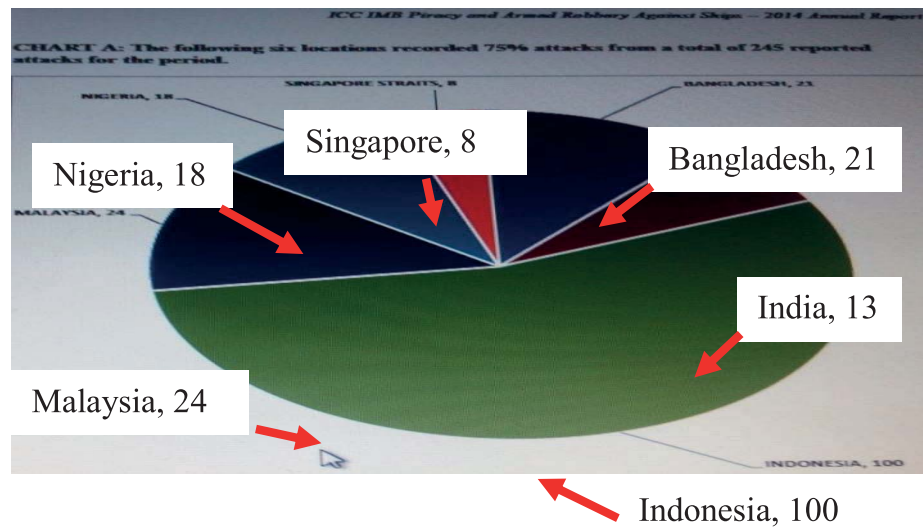
**Figure 2:** Human Trafficking Route in the BoB



Source: The Daily Star (09 May 2015)

**Trade Security.** The BoB region was marked as 'Risk Zone' for mariners since long. ReCAAP reports that a total of 73 incidents of piracy and armed robbery were reported in Asia during January-June 2014. Among these 18 were piracy incidents and 55 were armed robberies against ships. Out of 18 piracy incidents two were in the BoB. Major piracy prone ports of the world as per IMB report 2014 are shown in Figure 3. (ICC, 2014: 2).

**Figure 3: Most Piracy Prone Country of the World and BoB Littorals**



Source: ICC IMB Global Piracy Report 2014

**Smuggling/Drug Trafficking.** The state of Yaba trafficking is increasing rapidly in Bangladesh. As per the United Nations Office on Drugs and Crimes report Myanmar and Afghanistan are two major sites of drug production (UNDOC, 2013: 12). Smugglers use the BoB as route for transporting Yaba and other narcotic drugs from Myanmar to Bangladesh.

**Poaching.** Regular poaching occurs in Bangladesh coast. Fishing boats from neighbouring countries enters into Bangladesh EEZ for illegal fishing. In October to November 2014, 13 illegal foreign boats were apprehended by Bangladesh Law Enforcing agencies. Maritime Professional opined that disputed claim of Bangladesh-India and Bangladesh-Myanmar was a major impediment to prevent poaching as overlapping claims created grey area for law enforcing.

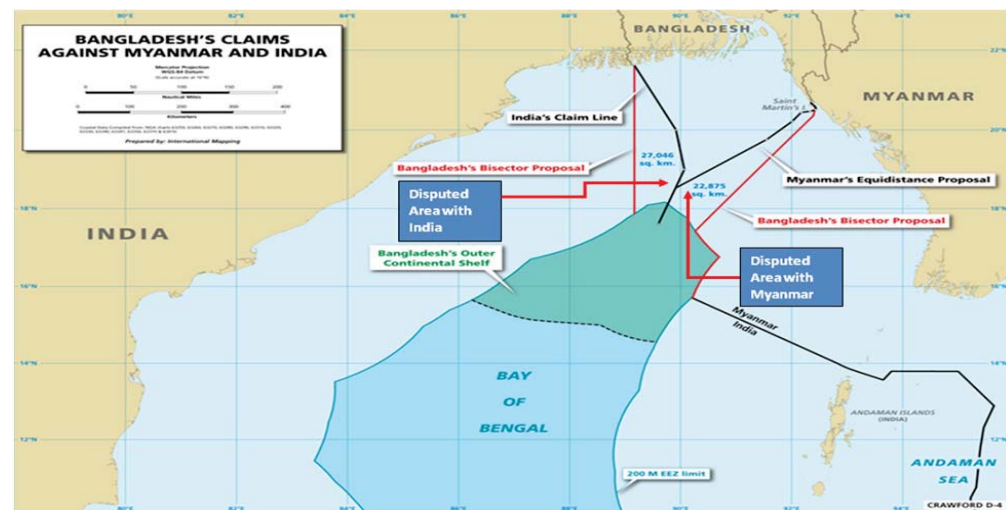
## Bangladesh-India and Bangladesh-Myanmar Maritime Delimitation

**Bangladesh - India and Bangladesh - Myanmar Maritime Dispute.** Maritime Dispute originated in 1974 with Bangladesh's claim on sea zones as per Territorial Water and Maritime Zones Act 1974. As per UNCLOS III of 1982, Law of the Sea Convention (LOSC) came into force in 1994 and became basis for delimitation of state's sea area. India ratified LOSC in 1995, Myanmar in 1996



and Bangladesh ratified the same in 27 July 2001 (Rahman,2003: 75). Myanmar and India submitted maritime claim on May 21 and June 29, 2009 respectively (Kumar, 2008: 1) to the United Nations. Claim of three countries created disputed area as shown in Figure 4.

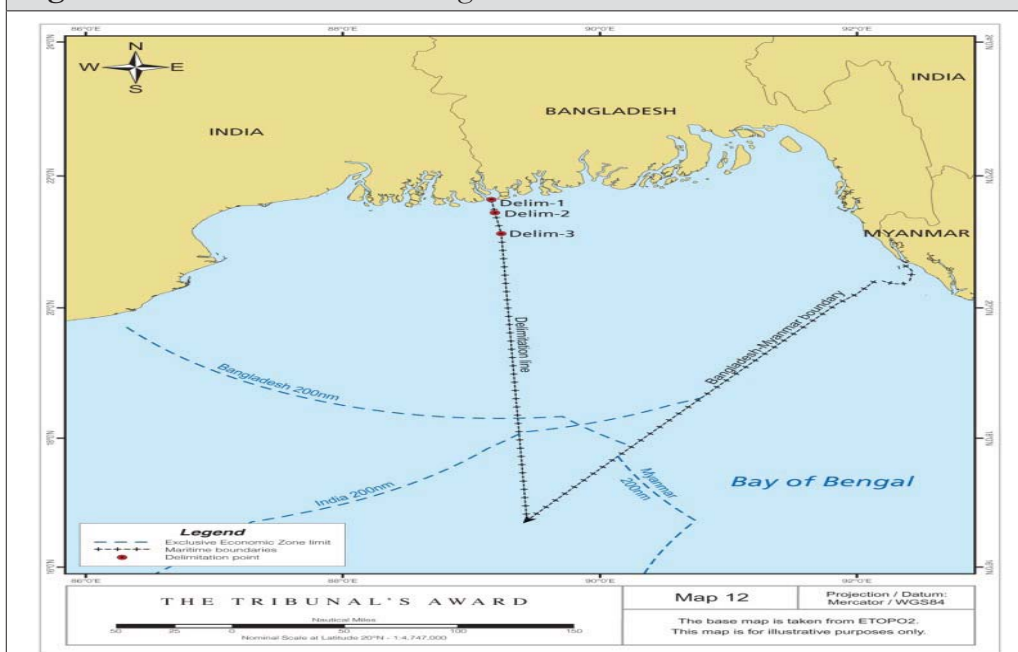
Figure 4: Disputed Maritime Claim by Bangladesh, India and Myanmar



Source: Bangladesh Ministry of Foreign Affairs

**Bangladesh – India and Bangladesh - Myanmar Maritime Dispute Resolution.** In 2009, Bangladesh opted to resolve dispute through compulsory dispute settlement procedure under UNCLOS which was accepted by Myanmar. Dispute between Myanmar and Bangladesh was settled on 14 March 2012 by ITLOS verdict. Bangladesh's objections on India's claim were filed to Permanent Court in Hague. The court finally declared verdict on 7 July 2014 delimiting boundary between Bangladesh and India. The Final delimited maritime boundary of Bangladesh with India and Myanmar after verdict is as shown in Figure 5.

**Figure 5:** Settled Sea Area of Bangladesh after Verdicts



Source: PCA Verdict on Bangladesh-India and Bangladesh-Myanmar Maritime Dispute

## MARITIME INTERESTS OF ACTORS IN THE BAY OF BENGAL REGION

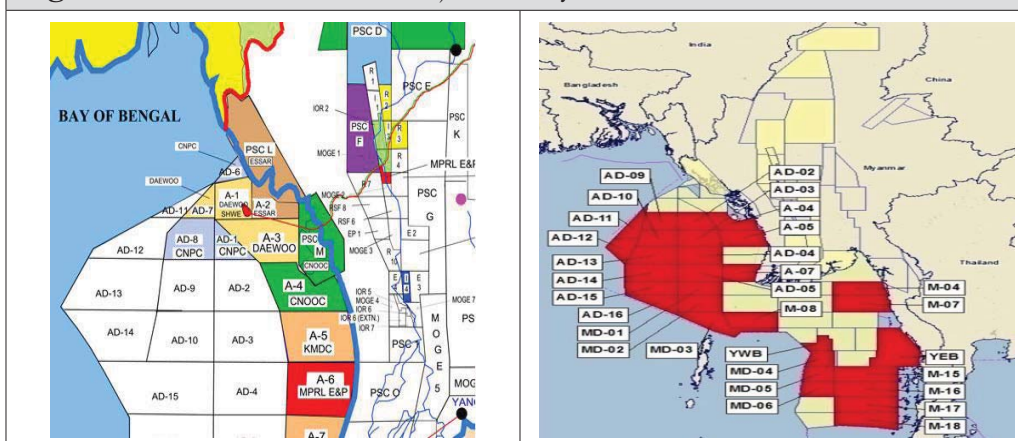
The BoB is influenced by regional and extra regional actors like USA, China, Russia, EU and other actors. Maritime Verdict has drawn world power actors to the BoB more than ever before. The driving forces of maritime operations mostly encircled with economic interests.

**Maritime Interest of Bangladesh.** Maritime interests of Bangladesh are mostly geopolitical and economic (Maritime, 2012:61). Geopolitical interests include maintenance of territorial integrity and sovereignty, improvement of social and cultural cohesion within country and economic enrichment of citizens utilizing enormous resources in the BoB. Economic interests include development and exploitation of EEZ potentialities, fostering maritime trade through regional connectivity. Bangladesh started exploring gas from offshore Sangu Gas field since 1994. In May 2015, Petrobangla, the state owned oil and gas corporation, has offered US-based Conoco-Phillips and Norway based Statoil ASA to sign final deal for exploring oil and gas in offshore blocks 12, 16 and 2. (Energy, 2015: 1).



**Maritime Interests of Myanmar.** Myanmar lies on the cross road of two Asian rising power India and China. Myanmar acts as strategic land bridge linking South and Southeast Asia. Various articles of Texas based Rigzone, Irrawaddy and Myanmar Oil-gas Home page reveals that after verdict Myanmar has significantly increased hydrocarbon exploration in the BoB. Sixty one international oil and gas firms pre-qualified in 2014 offshore bidding of Myanmar Oil and Gas. Awarding of 16 onshore and 20 offshore blocks in 2013 – 2014, Myanmar achieved rapid increase in investment in oil and gas sector. (Sophie, 2015: 1). Bidding has taken place in 2015 and next exhibition is due in January 2016. With new investment in 2016, Myanmar is expected to receive latest technologies and innovation to harness maximum potential out of oil and gas resources. (Global, 2015: 1). Shwe gas field in Rakhaine basin, the largest offshore gas reserves of Myanmar, started production in January 2014 (Figure 6). A combined natural gas reserve of the field is 4.53 trillion cubic feet (Offshore, 2015: 1). Companies like Daewoo International, Myanmar Oil and Gas Enterprise, Oil and Natural Gas Corporation Videsh, Gas Authority of India, Korean Gas Corporation and China National Petroleum Corporation are involved in exploration. Myanmar has finalized awarding of offshore block AD-03 in Rakhaine basin to UK based company Ophir Energy. (Offshore, 2015: 2).

**Figure 6: Shwe Natural Gas Project of Myanmar**



Source: Website (Offshore Technology.com)

**Maritime Interests of India.** The BoB is important to India for natural resources and connectivity with eastern states. India is engaged in hydrocarbon extraction from Myanmar Offshore fields. Being regional power, India sees certain diplomatic, economic and military interests in Asian waters particularly shipment of Middle-East oil, natural gas and raw materials. India's maritime

surroundings are intensely in geopolitical terms (Holmes, 2009: 37). India's primary economic interest in the BoB is related with extraction of hydrocarbon. India has concentrated on tapping gas reserves right from Tamil Nadu coast to Northeast. Number of reserves is discovered in Krishna-Godavari basin off Andhra coast, Mahanadi basin off Orissa coast and Sunderbans in West Bengal coast (People's Daily, 2004, 1). Proposal for gas pipeline from Myanmar to India through Bangladesh territory was first tabled in 1997 (Mirza, 2013:4).

**Maritime Interests of China.** China has three principle strategic interests in the BoB namely; energy procurement and energy security, access to the Indian Ocean and security of border areas including trade (Khan, 2014: 31). China aims to reduce SLOC vulnerability through Malacca Strait using Myanmar coast and land. As such, China has built 900 km pipeline from Myanmar.

A deep sea port is constructed in Myanmar's Mayday Island near Kyaukpyu in the BoB to transport crude oil carried from Middle East and Africa to Yunnan province. String of Pearls strategy of China includes series of ports along the Indian Ocean Northern seaboard (Figure 7). This includes an oil refinery at Hambantota of Sri Lanka and a container port in Bangladesh at Chittagong (Uddin, 2014:151).

**Figure 7: China String of Pearl in the Indian Ocean**



Source: <https://upload.wikimedia.org/wikipedia/commons/8/86/Collardeperlaschino.png>

**Maritime Interests of USA in the BoB.** US Cooperative strategy for 21 Century states that United States seeks to strengthen cooperation with long-standing allies in the Indo-Asia-Pacific region and continues to cultivate partnerships with states in the BoB region (US, 2014:11). Assessment of US Senate Committee in 2012 on Myanmar reveals that, Myanmar is with 80 percent of the world's teak supply, 90 percent of its rubies and tenth-largest natural gas reserves in the world. US focus to the Indian Ocean Region particularly in the BoB is on hydrocarbon and trade chain with the South East Asian countries. Heavy engagement of US based oil companies in the BoB increases importance of Bangladesh and Myanmar in US security architecture. Maritime delimitation has changed US attitude towards Myanmar. Consecutive visit of US president to Myanmar testifies US focus on Myanmar.

**Maritime Interests of Russia.** Russia's strategic interests in the BoB littorals are mainly focused on military cooperation. Russia's Foreign minister during visit in 2012, declared to expand ties with Myanmar by investing in offshore energy and mining in the BoB. Russia has arms deal with major littorals of the BoB like India, Myanmar and Bangladesh. As stated by Khan, Russia struck secret nuclear deal with Myanmar in 2007 (Khan, 2014: 33).

**Maritime Interests of EU.** Heavy investment in hydrocarbon extraction of European Oil Companies in Myanmar and Bangladesh state that Interest of EU in the BoB is mostly based on energy exploration and security of maritime trade. Bangladesh supplies 98 percent export commodities mostly RMG, leather goods and sea foods through the BoB where EU and USA are primary destinations.

## **IMPACTS OF VERDICTS ON REGIONAL MARITIME OPERATIONS**

### **Analysis on Actors Interests**

Tabular analyses of actor's interests referring to the operations at BoB are appended below:

<b>Table 2: Identification of Common Interests of the Actors</b>		
<b>Maritime Operations</b>	<b>Actors Involved</b>	<b>Interests/Involvement</b>
Energy Explorations	USA, China, EU, Russia, South Korea, Myanmar, Bangladesh, India	<ul style="list-style-type: none"> <li>• <b>USA, EU, South Korea, Russia</b> – Investment in gas exploration in the BoB</li> <li>• <b>China</b> – Investment in exploration as well as gas import from Myanmar</li> <li>• <b>India</b>- Investment in gas exploration and import of gas from Myanmar</li> <li>• <b>Myanmar</b>- Exploration of Gas from offshore blocks using international actors and export to neighbouring countries</li> <li>• <b>Bangladesh</b>- Exploration of offshore gas using international actors</li> <li>• Import of gas from Myanmar</li> </ul>
Maritime Trade	USA, China, EU, Russia, South Korea, Myanmar, Bangladesh, India, Singapore, Sri Lanka	<ul style="list-style-type: none"> <li>• <b>US, EU, China, Singapore</b> - Safe, secured and free flow of goods through the BoB</li> <li>• <b>India, Bangladesh, China, Myanmar, Thailand, Sri Lanka, Singapore</b> - Safe, secured and free flow of goods through BoB</li> </ul> <p>Regional connectivity for intra region trade development for economic emancipation</p>
Regional Connectivity	India, Bangladesh, Myanmar, China, Thailand, Sri Lanka	<p>Safe, secured and free flow of goods through the BoB</p> <p>Regional connectivity for economic emancipation particularly transit from BD ports to India, Nepal, China and Bhutan</p>

<b>Table 2: Identification of Common Interests of the Actors</b>		
<b>Maritime Operations</b>	<b>Actors Involved</b>	<b>Interests/Involvement</b>
Safety and Security of Mariners, SAR	Global Trade Community	Safety and security of maritime community will help all actors for maritime operations
Anti-Human Trafficking, Smuggling, Drug Trafficking	Bangladesh, Myanmar, Thailand, Indonesia, Singapore, Malaysia, Sri Lanka	Human and Drug Trafficking is a regional problem  All actors can involve in cooperated operation to curve illegal trafficking
Source: Prepared by the Author		

**Deduction.** Analysis shows that actors have significant common interests to complement each other. In this backdrop, future maritime operations in the BoB can be revamped by actors with the spirit of regionalism for the benefits of all through Collective Security and Development (Rahman, 2014: 1). Under the ‘South-South and Triangular Cooperation in the post MGD - 2015 of UN’, the BoB littorals can be engaged in Triangle Cooperation in bilateral, regional and international cooperation for upcoming ‘Sustainable Development Goal’ of UN. (Debopry, 2015).

## Impact of Verdict on Bangladesh

Maritime scholars and professionals opined that maritime verdict has both direct and indirect impact on Bangladesh.

### a. Direct Impact

- (1) **Energy Security.** Maritime verdict has direct impact on energy security through exploration of hydrocarbon in the BoB region. After verdict, Bangladesh is at freedom to take all possible actions to explore maritime potentialities like Myanmar and India. So, Bangladesh needs to expedite survey in deep sea area to discover hydrocarbon.

- (2) **Food Security.** The BoB can be a great source of food supply particularly by fishing. Admiral Khurshed stated that Bangladesh presently carries out fishing at shallow water up to 20 to 30 km from shore using 58000 boats (approx.) and 200 trawlers up to 60 km whereas Bangladesh has gained legal right to fish up to 660 km from shore. Total fish catch in the BoB in 2014 was 80 lac tons where Bangladesh could catch only 73 thousands ton.
  - (3) **Political Gain.** Impression and credibility of the government has increased manifold through the verdict. The government has also been able to maintain high level political affiliations with actors in own favour. The settlement has been done keeping relation with actor states intact.
  - (4) **Legal Side Impact in International Relation.** Bangladesh is the first country in Asia to resolve maritime boundary peacefully. Furthermore, this is the 1st case in the world where states could settle Continental Shelf. (Alam, 2015: Interview). Through the verdict Bangladesh could improve relation with international community significantly which facilitated addressing other important interests of government.
  - (5) **Maritime Domain Awareness.** After the verdict Maritime Domain gained recognition for economic importance to a great extent. Policy makers and the nation as a whole realized sea dependency and opportunities lie at sea. This has facilitated resource allocation in maritime capacity building. Bangladesh Navy and Coast guard has received phenomenal growth within short time. Government has opened special Desk at MOFA and formed Strategic Level committee to deal maritime issues. To cover scarcity of land resources Bangladesh is trying to foster Blue Economy.
- b. **Indirect Impact.** Bangladesh can capitalise economic emancipation in various sectors through diversified use of sea in dispute free environment:
- (1) **Sustainable Economic Growth.** Biotechnology can be applied in maritime sector for medicine and cosmetics production from fish and sea plants. Other economic use may be culturing sea weeds and pearl/oyster, fostering maritime trade, shipping, island reclamation through forestation, firming agriculture and cattle in coastal area. At present 0.3 million people of Bangladesh are directly involved in Maritime sector adding overall value of \$2.5 billion, foreign currency of \$ 1.5 billion and corporate tax of \$ 550 million (Begum, 2004: 5).
  - (2) **Food security.** Besides conventional fishing at sea through boats and trawlers, sea can be also used for Mere Culture by open sea fish cultivation. Thereby, sea can support additional protein supply through



natural fish. Besides, salt production, supply of milk from cattle farmed in islands can be originated through maritime sectors.

- (3) **Diversified Energy Sources.** Bangladesh can use sea for energy production through tide, water and other polymetallic nodules, sulfide crust, marine gas hydrate, shale gas etc for additional energy support.

## **WAY FORWARD TO CAPITALISE OPPORTUNITIES FOR BANGLADESH**

### **Maritime Operations Enhancement**

**Maritime Engagement of Bangladesh.** Bangladesh needs to address certain issues to capitalise opportunities created by the verdict:

- a. **Setting High Priority to Maritime Operation.** In the post verdict competitive maritime environment Bangladesh has to set high priority on maritime issues. In doing so Bangladesh may declare maritime sector as a Thrust Sector for exploring maritime potentiality. In this aspect, Bangladesh govt may also form special division to deal maritime affairs. This will reduce bureaucracy and bring resilience in maritime operations.
- b. **Improving Functionality of Maritime Agencies.** Maritime agencies are interdependent for operations. To be more effective agencies need to function under a common umbrella for support and cooperation. For this, Maritime Coordination cell in functional level will enhance maritime response capacity manifold. This will facilitate sectoral coordination for concerted effort.
- c. **Capacity Building of Maritime Agencies.** Maritime agencies need to be capable enough to operate in the Bay of Bengal considering the weather and Hydrography. In this aspect logical apportionment of national resources to be made to various clusters like BN, BCG, Shipping, Fishing fleet etc.
- d. **Cooperation with Neighbours.** Bangladesh needs to take initiative to make agreement with India, Nepal and Bhutan for transit arrangement from Bangladesh port.

**Deduction.** Bangladesh needs robust approach to capitalize opportunities created after verdict. In doing so, Bangladesh needs to adopt comprehensive road map with prudent persuasion to achieve set objectives. Critical analysis on strength, weakness, opportunity and threat will contribute further to set lines of action.

## SWOT Analysis on Maritime Environment of Bangladesh

SWOT analysis on maritime environment of Bangladesh is appended below:

<b>Figure 8: SWOT Analysis on Bangladesh Maritime Capability</b>	
<p><b>Strength</b></p> <ul style="list-style-type: none"> <li>• Huge Hydrocarbon Deposits</li> <li>• Huge living resources in the sea area</li> <li>• Strategic location to facilitate regional connectivity</li> <li>• Human resources for maritime engagement</li> <li>• Geo-Strategic importance for regional actors power balance in the BoB</li> <li>• Multilateral diplomatic policy of state</li> <li>• Huge low cost production capacity for international markets</li> <li>• Favourable political relation with India and west allies</li> <li>• Strategic location at the X road in South – South East Asia</li> </ul>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Exploration of offshore Hydrocarbon</li> <li>• Becoming regional economic hub through transit facilities</li> <li>• Exploration and preservation of living resources</li> <li>• Safer maritime environment for international trade</li> <li>• Exploration of Blue Economic potentialities</li> <li>• Facilitating regional connectivity for economic development</li> <li>• Job opportunities in maritime sectors</li> <li>• Relation with neighbours</li> <li>• Cooperative approach to address issues of common interests with neighbours, regional and extra regional actors</li> <li>• Gain interest as Power Balancer for regional actors</li> </ul>
<p><b>Weakness</b></p> <ul style="list-style-type: none"> <li>• Poor Technology/infrastructures for maritime resource exploration</li> <li>• Bureaucratic decision making process on major maritime issues</li> <li>• Dependency on India for regional connectivity/transit to neighbors</li> <li>• Less Maritime Domain Awareness</li> <li>• Inferior Naval power at the BoB</li> <li>• Political Uncertainty</li> <li>• Systematic Corruptions</li> <li>• Geographic location</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Hydrocarbon exploration by neighboring countries from adjacent blocks</li> <li>• Environmental degradation</li> <li>• Maritime resource degradation</li> <li>• Poaching by illegal fishermen</li> <li>• Human, Drug and Arms Trafficking</li> <li>• Military Modernization of neighbors</li> <li>• Neighbors hegemonic attitude</li> <li>• Disruption of SLOC by neighbours during war</li> <li>• Land connectivity from ports may be at stake</li> <li>• Uncertainty on support from influential power actor during tension or war</li> </ul>
Source: Prepared by the Author	

**Deduction.** SWOT analysis reveals that there are significant opportunities in maritime sectors for Bangladesh. Some issues need to be addressed in cooperative and collective approach by actors to complement each other's interests.

## **Lines of Approach for Maritime Operations**

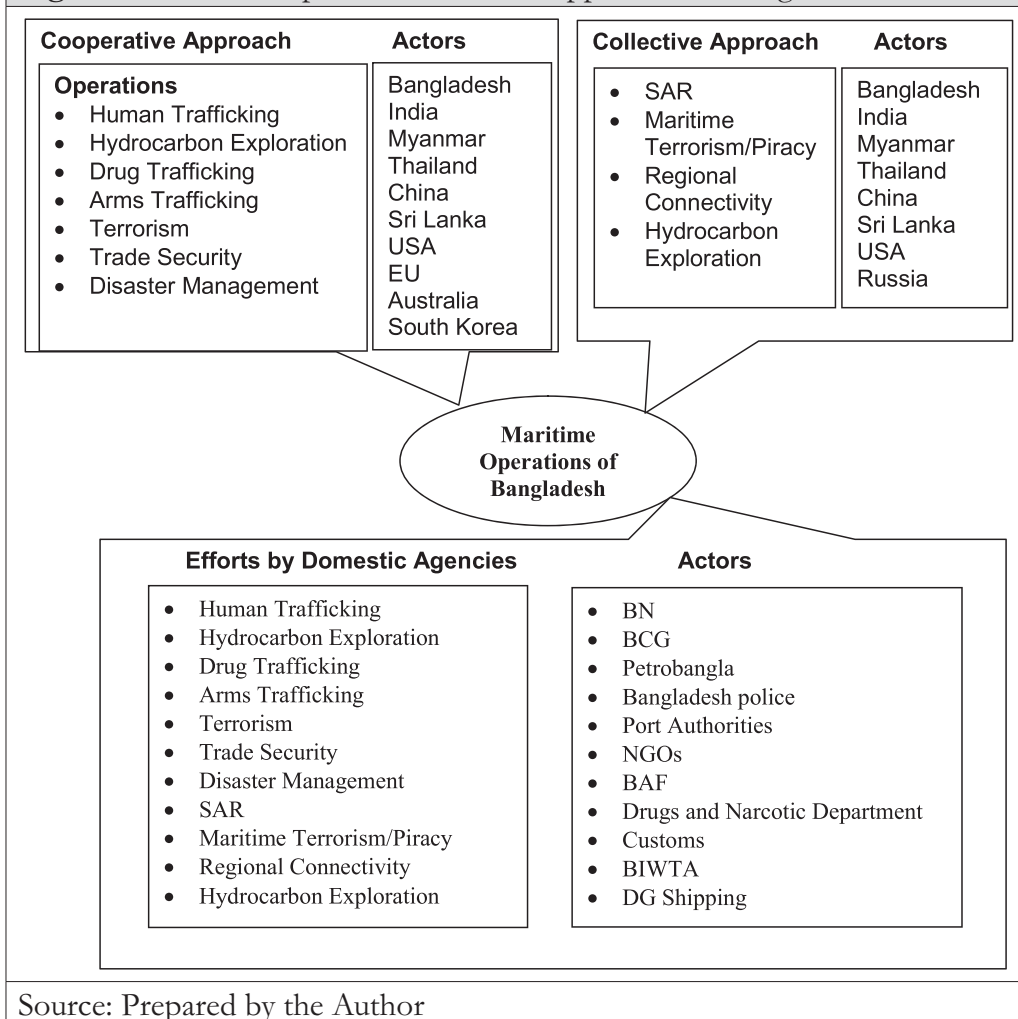
**Cooperative Approach.** Bangladesh can collaborate with USA, EU, Russia, and China for technology and investment in hydrocarbon. Other issues of common interests like SAR, regional maritime trade security, human trafficking, drug and arms trafficking can also be addressed in Cooperative Security approach through SAARC, IORA, BCIM, BIMSTEC and ReCAAP and IONS.

**Collective Approach.** Peaceful resolution of maritime dispute, progress in settling Bangladesh – India enclave issue and connectivity, Myanmar open policy and Chinese foreign policy offer positive atmosphere for collective security based on regionalism. Bangladesh can play pivoting role with complementing issues for mutual benefits in areas like maritime connectivity by transit to India, Nepal and Bhutan using Bangladeshi sea ports. Similar effort can be taken for controlling human and drug trafficking and SAR in the BoB.

**Own Efforts at Maritime Domain.** Certain issues like protection and exploitation of living resources, pollution control, marine research, trade security in the coastal area are solely interests of Bangladesh. These need to be addressed by Bangladesh itself and depends upon capacity of stakeholders and clusters like Navy, Coastguard, Ports, shipping, maritime institutions, fishing fleets, customs and police department.

**Maritime Operations Framework for Bangladesh.** Comprehensive framework for Maritime operations can be summarized as follows:

**Figure 9: Maritime Operations- Line of Approach for Bangladesh**



## Proposing Perspective Plan for Bangladesh

**Perspective Plan for Bangladesh.** Bangladesh needs to follow a deliberate well planned roadmap to achieve optimum output from maritime domain. In that aspect a suggested action plan is appended below:

**Figure 10: Proposed Perspective Plan on Maritime Operations**

Operations/Activities	Immediate	Short Term	Mid Term	Long Term
Surveying Sea Area for Hydrocarbon by International Companies				
Establishing NORI				
Maritime Education Facility Development				
Capacity building of stake holders				
Maritime Domain Awareness				
Declaring Thrust Sector				
Forming Maritime Division				
Area Maritime Coordination Cell				
Deep Sea Fishing				
Land Reclamation				
Cooperative Approach with International Actors				
Response to Myanmar Exploration				
Multi-Client Survey				
Harmonization of Laws and Regulations				
Hydrocarbon Exploration				
Energy from Tide and Water				
Shipping Development				
Container through Inland Route				
Marine Island Habitation				
Mere Culture				
Exploring Sea Bed Resources				
Sea Weeds and Pearl Culture				
Chemicals from Sea Water				
Collective Approach with Neighbours				
Bio Technology				
Marine Resource Management				
Source: Prepared by the Author				

## RECOMMENDATIONS

**Declaring Maritime Sector as Thrust Sector.** To materialize Proposed Perspective Plan in post-verdict scenario Maritime Sector should be declared as ‘Thrust Sector’ of Bangladesh so that massive drive can be taken in various maritime issues with due importance.

**Opening Maritime Division.** A separate Maritime Division should be formed to remain proactive in maritime issues by reducing bureaucratic channel. The division will ascertain national maritime interests in various sectors, identify objectives and issue directives to functional maritime stakeholders.

**Capacity Building in Functional Level.** Capacity of different maritime stakeholders like BN, BCG, Petrobangla, Ports, and Customs should be enhanced for attaining national maritime objective. Functional organization also will have to promulgate own Action Plan in line with the Perspective Plan.

**Cooperative Approach for Maritime Operations.** Bangladesh should adopt cooperative approach with regional and extra regional actors for hydrocarbon exploration, maritime connectivity, SAR and addressing non-traditional threats.

**Collective Approach for Maritime Operations.** Bangladesh should adopt Collective Approach in regional maritime issues with complementing interests like transit facilities, law enforcement and SLOC protection during peace and war through regional and extra regional forums.

**Harmonising Maritime Agencies Operations.** Bangladesh should harmonise maritime activities by activating common platform in functional level for interagency cooperation, coordination and for information and resource sharing. For this, Maritime Coordination Cell may be formed in regional level in Chittagong, Khulna and Barisal.

**MDA.** Maritime Domain Awareness Program should be under taken through regular seminar, workshop and trade fair etc involving national and international agencies to create awareness on maritime domain.

## CONCLUSION

Bangladesh-Myanmar and Bangladesh-India Maritime dispute originated in 1974 and created a zone lock for Bangladesh. The dispute was major hindrance to



explore maritime potentialities by littorals due to operational grey areas. Littorals faced difficulties to take steps against various types of transnational maritime security issues like human trafficking, poaching, smuggling etc. Dispute between Myanmar and Bangladesh is finally settled on 14 March, 2012 by ITLOS verdict and dispute between Bangladesh and India is resolved by PCA verdict on 7 July, 2014. Both verdicts are accepted by all three countries. Thereby, long maritime dispute came to an end and new era in Maritime Operation in the BoB began.

The BoB contains one of the richest hydrocarbon reserves of the world. Myanmar, India and Bangladesh - all three littorals have discovered offshore hydrocarbon where regional and extra regional actors are engaged to explore. The BoB is also maritime communication highway for Bangladesh, India and Myanmar. Trade route is linked with interests of US, China and land locked countries like Nepal and Bhutan. The BoB serve as huge supplier of fish and other living and non-living resources to littorals. Huge investment of USA and allies in hydrocarbon exploration, China's String of Pearl strategy and recent Active Defence Policy made the BoB as a global strategic important Bay.

Actors interests in the BoB depicts that Energy Explorations, Maritime Trade, Environment Protection, Safety and Security of Mariners, Anti Human Trafficking, Anti-Smuggling and Drug Trafficking, Protection of Marine lives, Marine Research, Management of Ecology are major concerns in the BoB. Regional actors strategy in the BoB is more of economic than military due to peaceful settlement of maritime delimitation. Most of the issues are complementing to actors interest. India, China and USA, being major actors view the BoB as important area for power balance.

Resolution of dispute has created opportunities to the BoB littorals to make cooperative engagement in bilateral, regional and global perspectives. Resolution of land enclaves and new land and maritime connectivity between Bangladesh and India in 2015 replicates positive atmosphere for more cooperative and collective maritime operations in the BoB.

SWOT analysis on Bangladesh depicts factors like huge hydrocarbon deposits, living resources, and strategic location can facilitate regional connectivity. States multilateral diplomatic policy also allows exploiting resources in collaboration with favorable regional and extra regional actors like USA, China or Russia. Low cost production capacity for international markets also attracts global business communities. Bangladesh can use strength for various opportunities like exploring

offshore hydrocarbon, exploration and preservation of living resources and Blue Economy emancipation. Maritime sector can create huge job opportunities as well. Actions against poaching, human, drug and arms trafficking is need more attention.

Considering opportunities and threats Bangladesh needs to adopt cooperative approach for hydrocarbon exploration with actors like USA, EU, Russia, China etc. USA being the most powerful actor in hydrocarbon exploration has complementing interest with Bangladesh in trade and energy, democratic support, and engaging in peace support operations. Bangladesh can also collaborate with Russia for hydrocarbon exploration. China has strategic relationship with Bangladesh in defence and economic development. Other issues of common interests like SAR, regional maritime trade connectivity and security, Anti Human, Drug and Arms Trafficking can also be addressed in Cooperative Security approach through regional forums.

Above all Bangladesh needs to address certain issues by own effort like protection and exploitation of living resources, pollution control, marine research and trade security in coastal area. For this, functional capacity of security elements needs to be enhanced. Capacity enhancement is to be achieved by adding resources as well as by enhancing jointness and interdepartmental cooperation. As such, Maritime Coordination cell at area level can be formed. Overall, to achieve optimum outcome from maritime domain Bangladesh needs to follow a Comprehensive Action Plan. The proposed Perspective Plan can be of great use in this regard.

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